

# A SYSTEM AND METHOD FOR MULTI-VIEW FACE DETECTION

## ABSTRACT OF THE DISCLOSURE

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A system and method for real-time multi-view (i.e. not just frontal view) face detection. The system and method uses a sequence of detectors of increasing complexity and face/non-face discriminating thresholds to quickly discard non-faces at the earliest stage possible, thus saving much computation compared to prior art systems. The detector-pyramid architecture for multi-view face detection uses a coarse-to-fine and simple-to-complex scheme. This architecture solves the problem of lengthy processing that precludes real-time face detection effectively and efficiently by discarding most of non-face sub-windows using the simplest possible features at the earliest possible stage. This leads to the first real-time multi-view face detection system which has the accuracy almost as good as the state-of-the-art system yet 270 times faster, allowing real-time performance.

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